Master of Information and Communications Technology (Research)
Master of Information and Communications Technology (Research) course exposes students to advanced topics and research in ICT. This course is comprised of a coursework component that is followed by a full-time-equivalent year of supervised research training. The primary objective of this course is to provide students with an opportunity to develop research skills appropriate to the ICT discipline. This course provides a pathway to PhD study by engaging students in research projects within the university or in collaboration with an external organisation.

**COURSE SUMMARY**
- **Course:** Master of Information and Communications Technology (Research)
- **Campus:** Parramatta Campus
- **Course Code:** 8112 (MICTRES)
- **Duration:** 2.5 years
- **Mode:** Full-Time
- **Tuition Fees:** $28,720 per year
- **Intakes:** February and July
- **CRICOS code:** 092789G

**PROFESSIONAL ACCREDITATION**
Western Sydney University has a long history of providing well-designed degrees in ICT that are accredited at the professional level by the Australian Computer Society (ACS). MICT (Research) course is fully accredited at the professional level by ACS.

**ADMISSION REQUIREMENT**
To be eligible for admission, you must have successfully completed a Bachelor degree, Bachelor Honours degree or a Masters degree in any discipline.

To be eligible for up to 40 credit points of advanced standing, you must have successfully completed:
- An undergraduate degree in Information and Communication Technologies (ICT), Computing or Information Systems; or
- an undergraduate degree in any discipline and a Graduate Certificate or Graduate Diploma in Information and Communication Technologies (ICT).

Advanced standing from foundation units are subject to approval by the relevant Director of Academic Programs (DAP).

Applicants seeking admission on the basis of work experience MUST support their application with a Statement of Service for all work experience listed on the application.

Accredited Program
COURSE CONTENT

The MICT (Research) has two components: coursework and research. The coursework component allows students to get familiarised with research techniques as well as advanced topics and technologies in the ICT discipline. The duration of the coursework component varies based on previous study disciplines and qualification levels of the student. At the end of the first year, students will have adequate research knowledge and skills to commence a research project in their interested ICT area. The research component for the second year is an 80-CP unit (Higher Degree Research Thesis). This unit would involve a substantial research project with a supervisor within a research group/lab at WSU or in collaboration with an external organisation.

RESEARCH PROJECT

All students in the MICT (Research) course will enrol in the HDR Thesis unit with 80cp in the second year. This year long unit provides an opportunity for masters students to carry out a comprehensive investigation and practical work on a cutting edge research topic in the area of ICT. Students are encouraged to select topics they envisage to be of value to their future careers. Students will undertake individual research-intensive project-based study under the guidance of an academic supervisory panel. Under supervision, each student needs to further critically review and appraise current literature, and conduct research activities to carry out the research plan. At the end, all students need to write a master thesis for the undertaken research and present their major research findings. Students are highly encouraged to publish peer-reviewed papers from outcome of their research.

STUDY SEQUENCE

YEAR 1

AUTUMN SESSION
- Systems Analysis and Database Management Systems
- Programming Proficiency
- Advanced Topics in User System Interaction
- Professional Practice and Communication
- Research Design 1: Theories of Enquiry

SPRING SESSION
- Network Technologies
- Advanced Topics in ICT
- One elective from List 1, List 2 or List 3

YEAR 2

1H Session
- Research Design 2: Practices of Research

AUTUMN SESSION
- IT Project Management
- Big Data
- One elective from List 1, List 2 or List 3

2H Session
- Higher Degree Research Thesis – Information Technology

YEAR 3

Higher Degree Research Thesis – Information Technology

The Master of Information and Communications Technology (Research) operates on the basis of 1H (first half) and 2H (second half) sessions.

These sessions are longer than the usual undergraduate Autumn, Spring and Summer sessions and it is important that you are available to attend classes and other events during the full 1H and 2H academic dates.

LIST 1 – FOUNDATION UNITS

- Advanced Topics in User System Interaction
- Content Management Systems and Web Analytics
- IT Project Management
- Network Technologies
- Programming Proficiency
- Systems Analysis and Database Management Systems
- Systems and Network Security
- Web Technologies

LIST 2 – SPECIALISED UNITS

- Advanced Health Classifications and Coding
- Advanced Healthcare Data Environments
- Advanced Healthcare Software and Systems
- Advanced Mobile Robotics
- Advanced Robotics
- Advanced Topics in Artificial Intelligence
- Advanced Topics in ICT
- Advanced Topics in Networking
- Big Data
- Cloud Computing
- Data Science
- Genomic Data Science
- Information Security Management
- Internet of Things
- Mobile Computing
- Modern Software Architectures
- Multimedia Communication Systems
- Network Management
- Predictive Analytics
- Programming for Data Science
- Social Media Intelligence
- Software Testing and Automation
- The Nature of Data
- Visualisation
- Web Engineering
- Wireless Networking

LIST 3 – MULTIDISCIPLINARY UNITS

- Contemporary People Management
- Economics
- Financial Reports for Decision Making
- Governance, Ethics and Social Entrepreneurship
- Strategic Business Management
- The Contemporary Business Environment
- Understanding Contemporary Organisations
WHY POSTGRADUATE STUDY AT WESTERN SYDNEY?

You’ve come a long way. Go further.

Located in the heart of one of Australia’s fastest growing economic regions, Western Sydney University offers unlimited potential to students with the drive, ambition and will to succeed.

Ranked amongst the top two per cent of universities on the globe, Western Sydney is a world-class university with a growing international reach and reputation for academic excellence and impact-driven research.

To take your career to the next level, you need more than classrooms, more than theory. That’s why we offer a combination of on campus learning environments, with real-life, on-the-ground, hands-on opportunities for skill development in professional and community settings. We value academic excellence, integrity and the pursuit of knowledge.

We equip our students with the means to do more than just advance their careers. We are unlocking the potential of the next generation of global citizens, leaders and change-makers.

HOW TO APPLY

International students apply direct to Western Sydney University.
westernsydney.edu.au/international/apply

Applicants must meet minimum academic entry and English proficiency requirements. westernsydney.edu.au/international/entryrequirements

International students are also required to have genuine access to sufficient funds while studying in Australia. Funds should be sufficient to contribute to the cost of travel, tuition, school costs for any dependants, and living costs. westernsydney.edu.au/international/fees

FURTHER INFORMATION

For further details about courses, including course structure, unit descriptions, work placement requirements (if applicable), visit handbook.westernsydney.edu.au

For information about studying at Western Sydney University, including assessment methods, course progression and attendance requirements, accommodation options, working and living in Australia, visit westernsydney.edu.au/studyandlife

DISCLAIMER

Western Sydney University reserves the right to withdraw or vary courses listed within this publication. In the event that the course or courses are to be changed, or in the event of cancellation, applicants will be advised to the address specified on their application.

CRICOS provider code: 00917K

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